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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/874,510	06/05/2001	Hung-Kun Chen	46914-2000	5897
23900	7590	10/12/2005	EXAMINER	
J C PATENTS, INC. 4 VENTURE, SUITE 250 IRVINE, CA 92618			DEPPE, BETSY LEE	
			ART UNIT	PAPER NUMBER
			2637	

DATE MAILED: 10/12/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/874,510

Applicant(s)

CHEN ET AL.

Examiner

Betsy L. Deppe

Art Unit

2637

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on July 28, 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-63 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 2-18, 29, 34, 38-41, 47-49 and 59-62 is/are rejected.
- 7) ☒ Claim(s) 1, 19-28, 30-33, 35-37, 42-46, 50-58 and 63 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Arguments

1. Applicant's arguments filed July 28, 2005 have been fully considered but they are not persuasive as follows.

2. With regard to the rejection of claims 2-18 and 29 under 35 USC 112, second paragraph in paragraph 8 of the Office Action mailed May 3, 2005, the applicant cited a paragraph in the specification for support (see page 18). However, these claims were rejected under 35 USC 112, second paragraph as being vague and indefinite because of unclear language, not as being unsupported by the specification. Therefore, referring to the detailed description for support does not overcome the rejection.

Based on the claims language, it is unclear how the interference collision ratio is defined. For example, if A corresponds to "a number of measured interference" in the claim, B corresponds to "a number of selected received signal packets" and C corresponds to the "number of unknown events," it is unclear from the claims language whether the interference collision ratio is defined as $A/(B-C)$ or $((A/B) - C)$. Therefore, the rejection under 35 USC 112, second paragraph is not withdrawn.

3. With regard to the rejection of claims 3-8 and 38-41 under 35 USC 112, second paragraph in paragraph 9 of the Office Action mailed May 3, 2005, the applicant cited a paragraph in the specification for support (see page 19). However, these claims were

not rejected as being unsupported by the specification. The claims were rejected because the claims did not define the acronym "MAU." To overcome this rejection, the applicant can amend "MAUs" to "minimal allocation units (MAUs)" when this limitation is first introduced in the claim.

4. In response to applicant's argument on page 20, that claims 29 and 30 provide antecedent basis for the limitations in claim 34, the argument is not persuasive because claim 34 does not depend from claim 29 and/or claim 30. Therefore, these claims cannot provide antecedent basis for the limitations in claim 34 and the rejection under 35 USC 112, second paragraph, is maintained.

5. In response to the applicant's argument on pages 20-21 regarding the rejection of claim 38 under 35 USC 112, second paragraph, the insertion of the commas does not clarify how the designation of "a predetermined number of said plurality of MAUs to be distributed into each of said partitions" by the dividing means differs from the determination of "the number of MAUs for each of said partitions" by the determination means. It seems that both the dividing means and the determination means calculate/assign how many MAUs should be allocated to each partition. Therefore, claim 38 is vague and indefinite because two separate means appear to be performing the same function and the rejection is not withdrawn.

6. In response to applicant's argument on page 21, that claims 29 and 30 provide antecedent basis for the limitations in claim 57, the argument is not persuasive because claim 57 does not depend from claim 29 and/or claim 30. Therefore, these claims cannot provide antecedent basis for the limitations in claim 57 and the rejection under 35 USC 112, second paragraph, is maintained.

7. In response to applicant's argument on page 22 that Chen does et al. does not disclose the features of "outputting a continuous sinusoidal signal" and "a mixed signal is converted to a lower and fixed intermediate frequency signal," since the circuit slide 14 of Chen et al. shows all of the recited limitations of claim 59 (and as shown in Figure 3 of the application), it is inherent/implicit that these features are present thereby reading on the claimed invention. Furthermore, it is inherent that a frequency synthesizer provides a continuous sinusoidal signal to a mixer to convert the input signal to a lower, fixed frequency signal.

Claim Objections

8. The claims are objected to because of the following informalities:
- a. the claims do not conform with 37 CFR 1.75(i) which requires that each element or step of the claim be separated by a line indentation. (See MPEP 608.01(m)) The originally filed claims conformed with the requirements but the claims in the amendment have been changed to paragraph form instead of separating each element or step by a line indentation.

- b. in claim 2, line 4, "the number" should be "a number";
- c. in claim 17, line 8, "said selected channel" should be "said at least one selected channel" (see claim 17, lines 3-4);
- d. in claim 27, the Examiner suggests changing "wherein further comprising a step after said step (1.4) of managing" to "wherein after said step (1.4), further comprising a step of managing" for improved readability;
- e. in claim 30, line 5, "reservation slot time slot" should be "reservation time slot";
- f. in claim 31, line 1, "said traffic management" should be "said step of managing" (see claim 27);
- g. in claim 36, line 5, the semi-colon after "comprising" should be a colon;
- h. in claim 37, lines 2 and 6, "fourth" should be "first" since no other interference collision ratios have been recited;
- i. in claim 38, line 7, "and" should be inserted before "designating" if this step is performed by the "dividing means" on line 3;
- j. in claim 54, lines 4-5, "said synchronous traffic management reservation slot time slot status" should be "a synchronous traffic management reservation time slot status";
- k. in claim 59, line 7, "a" should be inserted after "changing";
- l. in claim 59, line 8, "a partition" should be "said partition" since line 7 has introduced the "partition sequence generator"; and

m. in claim 59, line 18, "a hopping sequence" should be "the hopping sequence."

Appropriate correction is required.

Claim Rejections - 35 USC § 112

9. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

10. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

11. Claims 2-18, 29, 34, 38-41, and 59-62 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

12. In claim 2, lines 2-4 and claim 29, lines 8-10, it is unclear how the number of unknown events relates to the definition of the interference collision ratio. For example, is the number of unknown events subtracted from a number of selected received signal packets before the division step or is it subtracted after the dividing. I.e. if A corresponds to "a number of measured interference" in the claim, B corresponds to "a number of selected received signal packets" and C corresponds to the "number of unknown events," it is unclear from the claims language whether the interference collision ratio is defined as $(A/(B-C))$ or $((A/B) - C)$. As dependent claims of claim 2, claims 3-18 are rejected on the same grounds.

13. With regard to claims 3-8 and 38-41, "MAU" is not defined in claims 3 and 38, respectively.

14. Claim 34 recites the limitations "the time slot" and "said good channels" on line 3. There is insufficient antecedent basis for these limitations in the claim.

15. With regard to claims 38-41, in claim 38, it appears that both the dividing means (see lines 8-9) and the determining means (see lines 10-11) determines the number of MAUs for each of the partitions. It is unclear how the designated number by the dividing means differs from the determined number by the determining means.

16. With regard to claims 59-62, it is unclear whether the "partition sequence" generated by the "partition sequence generator" in claim 59, lines 8-9 is the same as the "partition sequence" changed by the partition sequence change processor in claims 9, lines 6-7.

17. Claims 47-49 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention. The specification does not describe how to designate interference and interference-free events based on the criteria recited in claim 47 in combination with the criteria recited in claim 42. According to pages 24-27, determining interference and interference events based on channel silent time (as recited in claim 47) is another embodiment from determining interference and interference events based on signal power and error detection (as recited in claim 42). This rejection may be overcome by

changing "claim 42" in claim 47, line 1 to "claim 37" and changing "wherein the error" to "further comprising an error."

18. As dependent claims, claims 48 and 49 are rejected under the same ground as claim 47.

Claim Rejections - 35 USC § 102

19. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

20. Claims 59-62 rejected under 35 U.S.C. 102(a) as being clearly anticipated by Kwang-Cheng Chen et al. ("Selective Hopping for Hit Avoidance," IEEE P802.15 Working Group Contribution, IEEE 802.15-01/057r2, March 10, 2001, cited in the IDS filed June 5, 2001) (See slide 14)

Conclusion

21. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).


A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any

extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

22. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Betsy L. Deppe whose telephone number is (571) 272-3054. The examiner can normally be reached on Monday, Tuesday and Thursday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jay Patel can be reached on (571) 272 - 2988. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


Betsy L. Deppe
Primary Examiner
Art Unit 2637